

12987
146
D
COMPLEAT VIEW (2) 86

Of the Present

Epidemical Distemper

AMONG THE

HORNED CATTLE,

WITH THE

Best Method of Cure.

Faithfully Collected from the most AUTHENTICK ACCOUNTS and PAPERS hitherto published.

Prodesse quam conspici.

By Dr Key.



LEEDS:

Printed by JAMES LISTER, at *New-street-End,*
M,DCC,XLVII.

1747



(iii)



P R E F A C E.

THESE Extracts were at first only drawn out to satisfy the Curiosity of two or three of my particular Acquaintance, the Order, in which they are done, I chose for the Sake of seeing in what Manner the Facts followed one another, and what necessary Relation they might have to each other, by which Means, a clearer Notion of the Disorder might be acquired, when (separated from every sort of Ornament) they were diligently compared and set together. Afterwards I thought of drawing up a few Directions for the Sake of common Farmers, deduced from a strict Survey of the whole, that it might be of Service to the Neighbourhood in which I live ; but a very ingenious Friend of mine, who is in every respect a Friend and a Promoter of the good of Human Kind, insisted on their being printed in the Original Form, as the transcribing frequent Copies would be trouble-

troublesome, and confined to a small Compass. I am a little apprehensive that common Readers may find some Difficulty, but if they will please to give Attention to the number'd Paragraphs, they will easily find out the several References, and then by often being obliged to look back, they will observe ~~with~~^a greater Perspicuity in this Method, and more easily remember what they read, than if this had been done in a continued Discourse, being much shorter and fuller than otherwise it could have been. Some of the Paragraphs and many of the Notes, will not be very intelligible to them, but they may pass over these as not designed for them; the History of the Symptoms of the Disease, the best Methods of curing it, are, I am persuaded, clearly pointed out to the most ordinary Capacity. As for the rest, I shall think myself happy, if I can furnish any useful Hints to Persons of more Leisure and better Education, who shall vouchsafe these Papers a careful and serious Perusal, since it is my utmost Ambition to contribute to the Publick Good.





EXTRACTS from TWO TREATISES,
 the one, *An Account of the present*
 EPIDEMICAL DISTEMPER amongst
the Black Cattle, &c. By a Mem-
 ber of the College of Physicians,
 1745. The other, *An Essay concern-*
ing the Mortality now prevailing
among the Horned Cattle, &c. By
 RICHARD BROCKLESBY, M. D. 1746.
With some few REMARKS from
other PAPERS.

1.



HE Cattle are for the first ten
 Days, a Fortnight, and sometimes
 longer, troubled with a dry husky
 Cough; during this Period, the
 Farmers are apt to neglect it, as
 being no uncommon Symptom.

2. Afterwards sooner or later, the Hair is rougher
 on the Skins than ordinary, their Eyes look heavy,
 and they begin to forsake their Food, have an ex-
 traordinary Thirst for some Time, and the Milch

B

Cows

Cows decrease their Milk ; which remains to a certain Quantity, sometimes for two Days before it changes Colour, at length turns yellow, and then quickly after dries up.

3. Upon ceasing to eat and chew the Cud, a shivering seizes them all over, and a high Fever comes on, and the Milk, if any now remains, curdles over the Fire, which it did not in the Beginning ; the Cough now increases, they breathe with great Difficulty and violent Panting: Some the first Day after the shivering Fit, others not before the Third ; but at different Times all have this dangerous Symptom, which is generally worse towards Evening and at Night.

4. The Belly at first is costive, but for the most Part within forty-eight Hours a Looseness succeeds the shivering * : The Excrements are green and watery, and of a stinking Smell at first, and afterwards slimy, and are sometimes mixed with Blood ; the purging continues about a Week, if the Cattle live so long, when in those that recover, their Excrements become thicker and better coloured, and these soon chew their Cud again and taste of Fodder, which they before absolutely refused.

5. All that had not this Looseness (4.) before the third Day died, yet the Difficulty of Breathing (3.) seem'd not immediately to abate by this Discharge.

6. Towards the fourth and fifth Day (viz. after the Shivering) and sometimes sooner, the Eyes and Nostrils

* Dr. MORTIMER says this Discharge seems to be bilious.

Note. ^{to 3} Many of the Cows which Dr. MORTIMER saw had a wild stare, the whites of their Eyes and Eye-lids look'd yellowish, and their Tongues were white. See *Geogr. Magazine* for December, 1746.



Nostrils run with a thick Rheum, which has frequently a bad Smell, and several of them discharge great Quantities of frothy Matter from the Mouth ; as the Disease advances, these Discharges Increase, and the Breath in some has a disagreeable Smell ; the Eyes sink, and become so much inflamed in some, that the Sight has been entirely destroyed.

7. Throughout this State (3. 4. 5. 6.) the * Urine is high colour'd, and in smaller Quantities, the Heat is great, and the Arteries on the third Day beat a hundred Pulses in a Minute ; whereas it has been observed in a healthy Ox, that they do not exceed thirty-eight, or thereabout in the same Time.

8. Frequently Pustiles break out on the fifth or sixth Days all over the Neck and Fore-parts ; but this is deny'd by the Author of the Account, *Page 22.*

9. Towards the Conclusion, the Fore-parts of the Body, particularly the Glands about the Head, are prodigiously swelled, and the Paunch extremely distended ; and several Beasts have an universal Inflation of the Skin, or crackling of Air beneath their Skins, more especially in their Necks, Shoulders, and upon their Loins ; § this appear'd in those who were not blooded equally with such as were.

10. The Swelling (9.) is thought a fatal Sign, it appears only where the Disease has been of some Continuance, for none of those who died a few Days after the Attack of the Fever (3.) were afflicted with

B 2

it.

* Dr. MORTIMER says the Urine is bilious.

§ This last Part of the Paragraph was inserted, because the Author of the Account, thought the Inflation was owing to a Portion of the Air being admitted by the Incision made in the Skin in opening a Vein.

it. The Flesh grows cold, and the Horns and Dugs remarkably so before Death.

11. The Continuance of the Disease is uncertain : Some Cattle became raging mad the first Day of the Fever (3.) and were necessarily killed ; some drop'd down dead suddenly ; others died on the third, most on the sixth or seventh, and very few lived to the fourteenth Day.

12. The Blood taken from a Vein in the Beginning of the Disorder is thicker than usual ; (probably very fizy) but the Blood of sound Cattle being generally much thicker than human Blood, requires Persons knowing in their Diseases, and the Crasis of their Fluids to be proper Judges thereof.

13. In the Progress of this Disorder, the Blood at last becomes so thin, as not to coagulate readily, even upon pouring Spirits of Vitriol to it. This is commonly the Case, where the Humours are entering into a State of Putrefaction.

14. In the Bodies of eight Cows who died of this Distemper, Dr. *Brocklesby* observ'd the Flesh of a sound Colour, lined every where with Fat, but between the Skin and Flesh the cellular Membrane was distended with Air, to above the Thickness of three Inches ; the Paunch in all of them was prodigiously distended with Food. Upon opening the Omasus, or third Stomach, commonly called the Feck, in which the Food is naturally without much Juice, a most offensive Stench rushed out with a large Quantity of thin greenish Water : The inner Surface of this, and of the Abomasus, or fourth Stomach, usually called the Read, and also Part of the Intestines, had the small Blood Vessels very full, so that they appeared inflamed. The Kidneys, Liver, &c. were as usual, but the Gall-bladder in the greater Number

was fuller than ordinary. The Lungs were much inflamed, being turgid with red Blood, and larger than in a healthy State; the inner Part of the Wind-pipe was cover'd with a frothy Mucus. In some which Dr. *Mortimer* open'd, the Lungs were found inflamed and blister'd, the Guts in some Places inflamed, in others livid, and the Gall-bladder exceeding large, the Liver scirrhus, the Wind-pipe greatly inflamed throughout its whole Course, and especially its inside: In one Cow he saw the Fat yellow. See the Note to Paragraph 3. above.

15. Some Persons have found the Intestines in their inner Surface surrounded with purulent Matter; and Dr. *Brockelsby* observ'd a slimy Mucus in some of those above-mentioned (14.) all along their Cavity.

16. The Author of the Account says he has observed the Paunch in its inner Surface to be turn'd black and gangrenous, and the whole Tract of the Intestines (15.) to be excoriated, inflamed or mortified: As to the blackness Dr. *Brockelsby* observes from an * ingenious Writer, that may be natural to sound Cattle, it being often found so in all but Bulls and Heifers, or young Cattle.

17. And the Author above-mentioned likewise says, that Abscesses have been found in the Lungs; that in some they appeared of a livid blackish Colour, and were putrefied to such a Degree, tho' the Cattle had not been long dead, as scarcely to bear touching, without falling to Pieces in your Hands. The Wind-pipe also contain'd in some a great Quantity of concocted yellow Matter, such as is usually spit up in purulent Disorders of the Lungs. This gangrenous or mortified State of the Lungs is only to be seen in those

those which have been long ill ; but they have constantly been found inflamed even in those who died in the Beginning (3. 11.) of the Disease ; tho' at the same Time the rest of the Bowels were sound.

18. The Tonsils or Almonds of the Ear are oftentimes inflamed or imposthumated.

19. A Piece of Flesh from a Cow, which died of the present Disorder, grew rancid, and tended to Putrefaction in about twenty-six Hours after Death. To prevent therefore any ill Effects from the Use of Flesh Meat, where we are not certain of the Infection, it will be proper to keep it three or four Days without Salt, and should it remain so long in temperately cool Weather without Signs of tainting, we have good Reason to conclude it to be wholesome ; otherwise, it will be adviseable to refrain from such Food.

20. Upon the whole it evidently appears (3. 7. 12.) this Disorder is a violent high Fever, with an Inflammation of the Lungs, and sometimes of the Bowels (4. 14. 15. 16.) ; that in the Progress of it, the Glands about the Head and Neck become also inflamed (9. 10. 18.) ; and that the Fluids being violently agitated, at length enter into a putrefactive State (13. 16. 17.), and occasion Mortifications, &c. Hence may be understood the Reason why the Flesh of these distemper'd Cattle, tho' otherwise seeming to be sound, (14.) will not keep (19.) untainted.

21. Since it is manifest that the dry husky Cough, (1.) however it may appear only as a common Cold,
or

* Dr. MORTIMER concludes from the largeness (I suppose) of the Gall-bladders, scirrhus Livers (14), yellowness of the Eyes and Eye-lids, (Note to 3.) the bilious Excrements, &c. (Note to 4. and 7.) that the Purging and Inflammation in the Guts, is owing to the Acrimony and overflowing of the Gall.

or be looked upon as a Symptom not unusual in some Seasons of the Year, almost always ushers in this fatal Disease, it must be highly imprudent to neglect it, especially where the Cattle in the Neighbourhood are infected. In this first Stage therefore when they begin to cough, they should be taken up from Grass, and be blooded plentifully, and kept fasting a Day or two, or at least be fed sparingly, in order that the Load of crude undigested Aliment in the Paunch (14.) may be discharged. Only good old sweet Hay and moisten'd with Water, and but in small Quantities, or a few boil'd Oats must be allow'd; their Liquor should be Water-gruel or warm Water. Two Ounces of Honey dissolved in half a Pint of warm Vinegar, may be given once a Day. At this Time it will be proper, that a Flux of Humours on the Lungs in the Course of the Disorder, may be prevented, to have a Couple of Seaton, or Setterings as they are called, in the Dew-lap, and in the under Part of the Neck; or Pegs of Hellebore Root put in deep, to promote a plentiful running, which if omitted, 'till the Fever (3.) rises high, may not take Effect soon enough.

22. Bleeding plentifully and keeping warm, with proper Care, as above (21.) in feeding, have recover'd the greatest Part in this first Stage, without undergoing any bad Symptom whatsoever, or being more affected than as in a common Cold. *See the Account, Page 19.*

23. The

Note. The Supplement to the *Gentleman's Magazine* for 1746, contains, An Extract of a Letter wrote by Dr. Barker (who I suppose is the Author of the Account, &c.) to a Gentleman at *Northampton*, in which, a farther Relation is given of the Success attending the above Method (21. 22.)—He says that he is personally acquainted with one who last Winter saved all his Cattle by observing these Directions; and he has been credibly inform'd,

23. The next Stage, or what Dr. *Brockelsby* calls the first, reckoning from the Attack of the Fever to the sixth Day, requires the most plentiful bleeding. He also orders before they are seized, Seaton, &c. (See 21.) but immediately on refusing Fodder, (3.) that they should be bled to three Quarts and one Pint, and twelve Hours after two Quarts more, and after the next twelve Hours to about three Pints more; after the same Space of Time a Quart, and lastly in about the same Time a Pint more should be taken away; perhaps by this the Beast may be relieved, but if the Difficulty and panting for Breath continue very great, the Bleeding may be yet repeated, or at least, the fifth Time instead of a single Pound, twice the Quantity may be taken. In the mean while the Setterings or Pegs should be daily promoted to Suppuration by moving the Cord; and the Cattle should have as much Bran-water, as they chuse to drink lukewarm, and he recommends that it be made a little tart or sourish with common Vinegar, or a few Drops of Spirit of Vitriol. Immediately after the first Bleeding, they must have the following Drench: Take of * Camphire one Dram and half; dissolve it in

inform'd, that another in *Essex* out of 60 Cows, saved 58; and that a much greater Number of Cattle recovered in the Neighbourhood of *London* this Winter than the last, which he attributes to taking them up in Time, bleeding largely and keeping them warm, giving Plenty of Water-gruel, &c. But the most considerable Instance in Favour of the Method prescribed, is, that a Person at *Kentish Town*, who having but a small Number of Cows, and consequently being better able to take Care of them, was so fortunate as to save them all by following these Directions, but neglecting to take the same Precautions this Autumn, has lost her whole Stock by the Distemper.

* The Quantity of Camphire in the first Drench may appear large, but Dr. *Brockelsby* took himself near half a Dram, which had no other Effect, but to promote a good Night's Rest, and a gentle Sweat.

of the Account
The Author, in the Beginning of this Stage, likewise orders Bleeding once a Day for two or three Days together; he says five or

in two Ounces of Honey; add of Salt-petre one Ounce and half: Mix these in a Pint and half of Water-

or six Pounds may be taken away at first, and above half that Quantity the second Time, but if a third be necessary, a Pint, or a Pint and half; and besides recommending in the mean while Plenty of warm Water for Drink, he thinks it would not be amiss, if a Bucket full of warm Water was constantly kept under their Nostrils, that the Steam arising from it, might help to relax the obstructed Vessels of the Lungs. He farther says, a very ingenious Gentleman much conversant with Cattle has given the following Remedy with good Success.—Take one Ounce of Salt-petre, half an Ounce or six Drams of Sperma Ceti, and half an Ounce of Contrayerva Root; make a Powder of these Ingredients, and give it twice a Day made up into a Ball with Honey, or in a Drench of Vinegar and Honey mentioned above, Paragraph 21. which as being in a liquid Form, must be preferable to Balls, for the Reasons assigned by Dr. Brockelsby, below Paragraph 26.

J. S. in *Gent. Magazine* for January 1747, proposes to be given once a Day, during this Time, one Ounce and half of Salt-petre, dissolved in three Pints of Water, to which must be added sixty Drops of Oil of Vitriol, or instead of this a Quarter of a Pint of good Vinegar (or which is better) good old Verjuice.

I cannot well pass over one Thing, I think necessary to be observed, that there is an essential Difference in their Effects, between Mineral Acids, such are Oil or Spirits of Vitriol, Nitre, Sulphur, &c. and those procured from Vegetables by Fermentation, as Vinegar, Verjuice, &c. the first are austere, astringent, and coagulate the Blood when mixed with it, and therefore it should appear improper to give them, where the Blood is already too thick, which it is in the Beginning of this Disorder. (See *Parag. 12.*) On the contrary Vinegar and all fermented Acids, when mixed with the Blood, render it thinner and more diluted; and since these are indisputable Facts, it must evidently follow, that the latter ought to be preferred to the former in this Case. But in the Progress of the Disease, when the Blood is disposed to a putrefactive State, it's ~~constant~~ Principles begin to be dissolv'd, and then as soon as this Tendency can be perceived, or where from the extreme Violence of the Symptoms and burning Heat it may be justly apprehended, the Mineral Acids might with great Propriety be exhibited; tho' towards the last, neither these, nor any Thing else will be of Service. (See *Paragraph 13.*) Hence we understand, why in malignant putrefactive Fevers, the most eminent Physicians have order'd Acids of the Mineral Kind properly diluted; and Dr. Syddenham, the *English Hippocrates*, in a

constituted

Water-gruel, and give this Drench immediately after each Blood-letting, but the last; that is to say, you are to give them no more than four of these Drenches. If after forty-eight Hours, that is, after having taken four of the above Drenches, the Body be not loosened (5.) it would do well, to add one Jill of sweet Oil, to the following Drench.—Take one Ounce of wild Valerian Root in Powder, two Drams of Virginia Snake Root also powder'd, and mix them in a Pint and half of Water-gruel; give this Drench every twelve Hours as you did the former, beginning directly after the fifth Bleeding, or on the Beginning of third Day; but if the Purging come on before this Time, the Sallad Oil should be omitted, lest it increase the Purging to too great a Degree. If the Looseness continue untill the eighth Day, add to the last mentioned Drench without Oil, one Ounce of Venice Treacle, and if this does not moderate the Purging, repeat it again twelve Hours after. If the Purging seem to weaken the Beast exceedingly, a Handful of Whiting may be added to every Gallon of Bran-water in the Boiling, and in some Cases the Venice Treacle may be given even on the sixth Day. Bran-water should be frequently drank during the whole Disorder; but after the third Day, you need not perhaps add Vinegar to make it sowerish. After the sixth Day, if the crackling of Air beneath the Skin is great, several Incisions must be made in the most dependent Parts of the swelled Places, for so many outlets to the morbid Humours; these with the Seatons or Setterings must be rubbed daily with equal Parts of Hogslard and Swedish Tar.

24. The

bad Sort of the Small-Pox gave Small-beer gently acidulated with Spirit of Vitriol for common Drink; see his Works, Sect. 5. Chap. 4. and in a particular Fever he describes Chap. 2. of the same Section, in the worst Symptoms of it, he gave the same Medicine with great Success.

24. The Author of the Account says, that two Parts in three of those which were bled early in this Stage (23.) recovered, and also one in three of those, that were bled a little later. But when once the Humours are thoroughly fixed, or rivetted, as he expresses himself, on the Lungs, this Evacuation may rather do harm than good, or even after the third Day, computing from the Time when the Milk dries up. In violent acute Fevers, such as accompany Inflammations of the internal and vital Part, the Bleedings ought to be very early administred; this is a general Rule almost without Exception: For the Blood being extremely agitated, thick and sizy, cannot pass in the Progress of the Disorder, but only through the larger Vessels, and is accumulated at the vital Parts, hence what passes into the Veins is the thinnest Part, and what yet keeps up the Strength and sustains the Circulation; the diminishing therefore the Blood in this Case by opening a Vein, is evidently lessening that Part of the Blood, which is yet fit for the Uses of Life, and abating the Force of Nature, not the Violence of the Disorder; and hence appears the great Imprudence of neglecting in the very Beginning of Pleuritic Fevers, Inflammations of the Lungs, and in general all high Fevers, this necessary and almost only useful Evacuation. — But there is another Inducement, not to neglect early Bleedings in this Epidemical Disease among the Cattle, since it has by long Experience been found, that Bleeding in these infectious and pestilential Disorders has been as little effectual in the latter End, as it has been serviceable in the Beginning of them; whatever may be the Reason of this, is not I think in any Respect material, provided it be certain Fact.

25. During the whole Disease, the utmost Care imaginable must be used to keep the sick Cattle very warm, not only by Housing them (21.) but covering

them with old Hop-bags or such Things, and giving them Plenty of fresh dry Straw to lye on ; for unless especial Regard be paid to this Circumstance, every Thing else will signify nothing ; therefore Care must be taken to stop up with Straw every Hole in the Cow-houses, so as to prevent any Draught of Air through such Places.

26. It ought also to be observed, that liquid Medicines are to be preferred to those in a solid Form : For the Paunch always contains unmacerated and undigested Food without any Liquid, and this solid Food is after some Time brought into the Mouth, and chewed over again, and then conveyed to the second and third Stomach called the Feck. But their Drink or most of it, is admitted by a particular Passage, from the Gullet immediately into the third Stomach. As therefore the Cattle cease to chew the Cud in this Disorder, (3.) solid Medicines, cannot act with the Advantage to be hoped for from those given in a liquid Form, nay may probably be very prejudicial, since they must remain in the Paunch, till the Beast chew the Cud again.

27. By this Method, (23. 25.) Dr. Brockelsby only proposes to save a certain Number, that would otherwise be lost, and thinks no one can rationally pretend to any specifick Remedy.

28. From this accurate View however of the present Epidemical Disease among the Horned Cattle, (1. 2. 3. 4. 5. 6. 7. 9. 12.) tho' in Process of Time

to 25.

Note. In the Letter above-mentioned (See Note to 22.) Dr. BARKER says, a Cow-keeper near London by this Care preserved many of his Cows this Autumn, whilst at the same Time, not a single Beast escaped of those, which he suffered to lye out at Grass.

Time it may alter in some of its Appearances, and the Method of Cure (21. 22. 23. 25.) may be something different, yet it is hoped, that ingenious and thoughtful Persons may apply themselves with such Attention, as to find out a more speedy and sure Method of curing it.

to 27.

Note. In the Year 1714, a Disease raged among the Kine in *England*, which carried off great Numbers : Medicines at that Time proved ineffectual ; and the Method which at last put a Stop to the Contagion, was this, they divided their Cows into small Parcels, by which Means they lost only that Parcel in which the Contagion happen'd ; for otherwise it would have spread from one infected Cow thro' a whole Herd. The King allowed a Reward out of his own Civil List, for every Cow, that was burned or buried with Quick Lime, and the Sum thus paid amounted in the whole to 6774 *l.* 1 *s.* 1 *d.* The Number of Bulls and Cows lost by this Disease were five Thousand, four Hundred and eighteen in the Counties of *Middlesex*, *Essex*, and *Surry* ; and of Calves, four Hundred and thirty-nine. A particular Description of it is published in the *Philosophical Transactions*, No. 358.

In Times of publick Calamity, such as these, and especially in the Places where the Disorder is most prevalent, People are generally so much confused, that no regular Methods or Regimen are ever steadily pursued, but any sort of Medicines set out with specious Titles are sought after ; Numbers of these Receipts, I do not doubt, with a well-meant Intention, have been printed in the publick Papers, but which have had this ill Effect, that the Farmers after having tryed one or two without answering the End expected, have concluded nothing would be of Service, and so have neglected in the Beginning, the necessary Evacuations (21.) and Care of keeping their Cattle warm : Or, if they try'd a Multitude of such Prescriptions in any Manner whatsoever, they might do much more Harm than good, many of those being absolutely contrary to the Nature of the Disorder ; advised by Persons entirely ignorant of its Symptoms ; and in every respect unqualified for proper Judges.

F I N I S.

This Day is published, Price 2s.

And sold by John Swale Bookseller in Leeds;

The Third Edition Corrected, of

ENGLISH HOUSEWIFRY, Exemplified in above four Hundred and Fifty RECEIPTS, giving Directions in most Parts of COOKERY; and how to prepare various Sorts of

SOOPS,
MADE-DISHES,
PASTS,
PICKLES,

}}

CAKES,
CREAMS,
JELLIES,
MADE-WINES, &c.

With Cuts for the orderly placing the Dishes and Courses; also Bills of Fare for every Month in the Year, and an alphabetical Index to the Whole.

A Book necessary for Mistresses of Families, higher and lower, Women Servants, and confined to Things *Useful, Substantial, and splendid*; calculated for the Preservation of Health, and upon the Measures of *Frugality*, being the Result of thirty Years *Practice and Experience*.

By ELISABETH MOXON,

LEEDS: Printed by James Lister, and sold by S. Birt, in *Ans-Mary-Lane, London*; and by the Booksellers in Town and Country.

At the same Place may be had, just publish'd,

Beautifully printed in Octavo, Price bound in Calf 3s. 6d.

A neat and correct Edition of,

WILLIAM PENN's No CROSS, No CROWN.

In Two PARTS.

I. Containing a Discourse, shewing the *Nature and Discipline* of the Holy CROSS of CHRIST; and that the Denial of Self, and daily bearing of Christ's Cross, is the alone Way to the *Rest and Kingdom of God*.

II. Containing an Account of the living and dying Sayings of Men eminent for their *Greatness, Learning, and Virtue*; and that of divers Periods of Time and Nations of the World.—All concurring in this one Testimony, that a Life of strict Virtue, viz. *To do Well, and bear Ill*, is the Way to everlasting Happiness.

N. B. This excellent Treatise has already pass'd seven Editions, and of this [viz. the 8th] almost 2000 have been sold in about three Months time; which may supercede the Necessity of any other Recommendation.

